Comparison of 2019 and 2023 AGS Beers Criteria Updates

2023 Updated AGS Beers Criteria: What's New, What's Changed, & Why?

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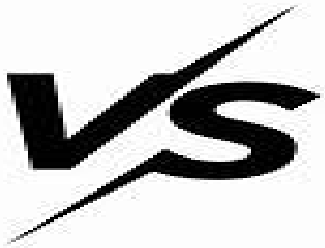
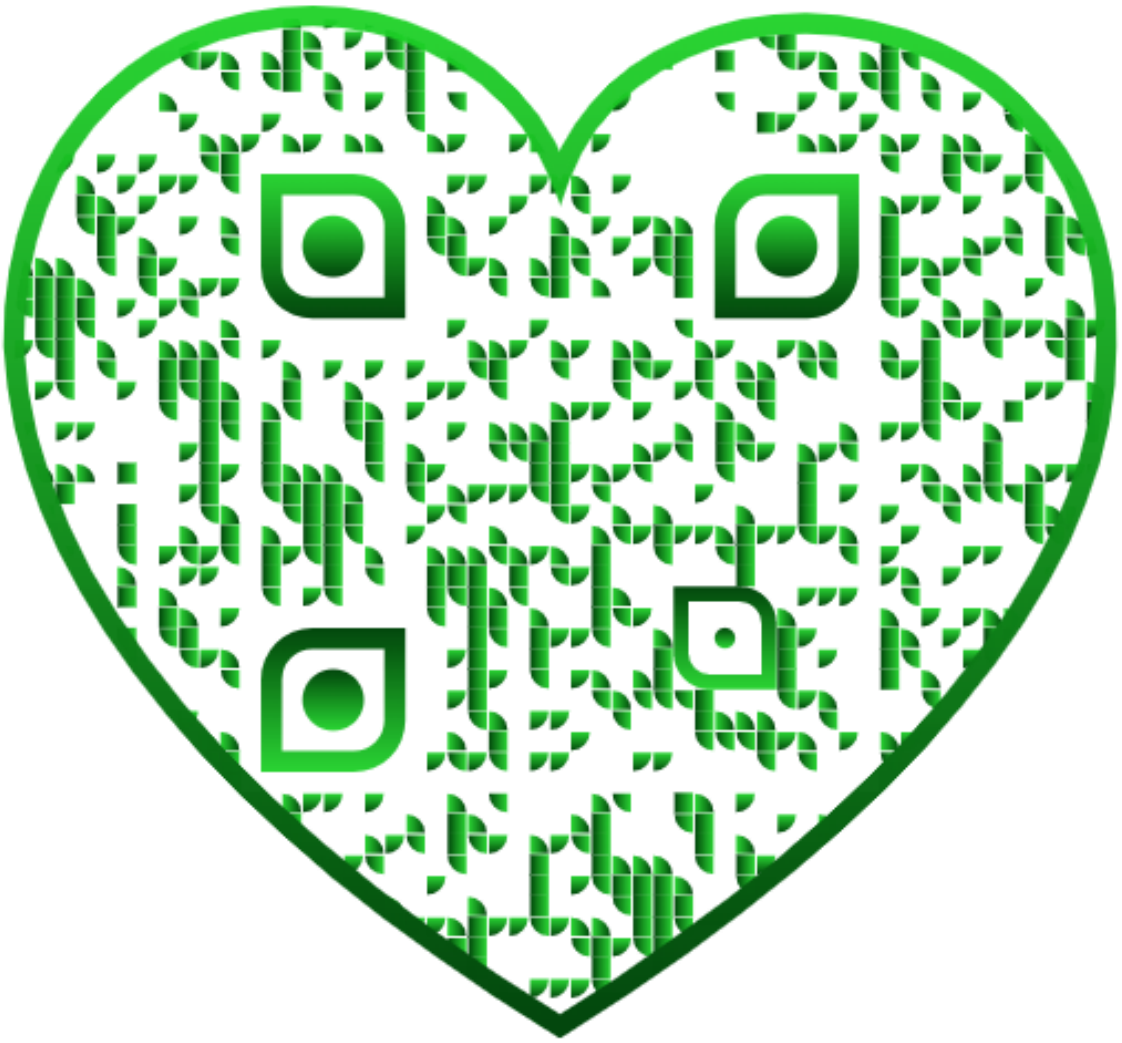
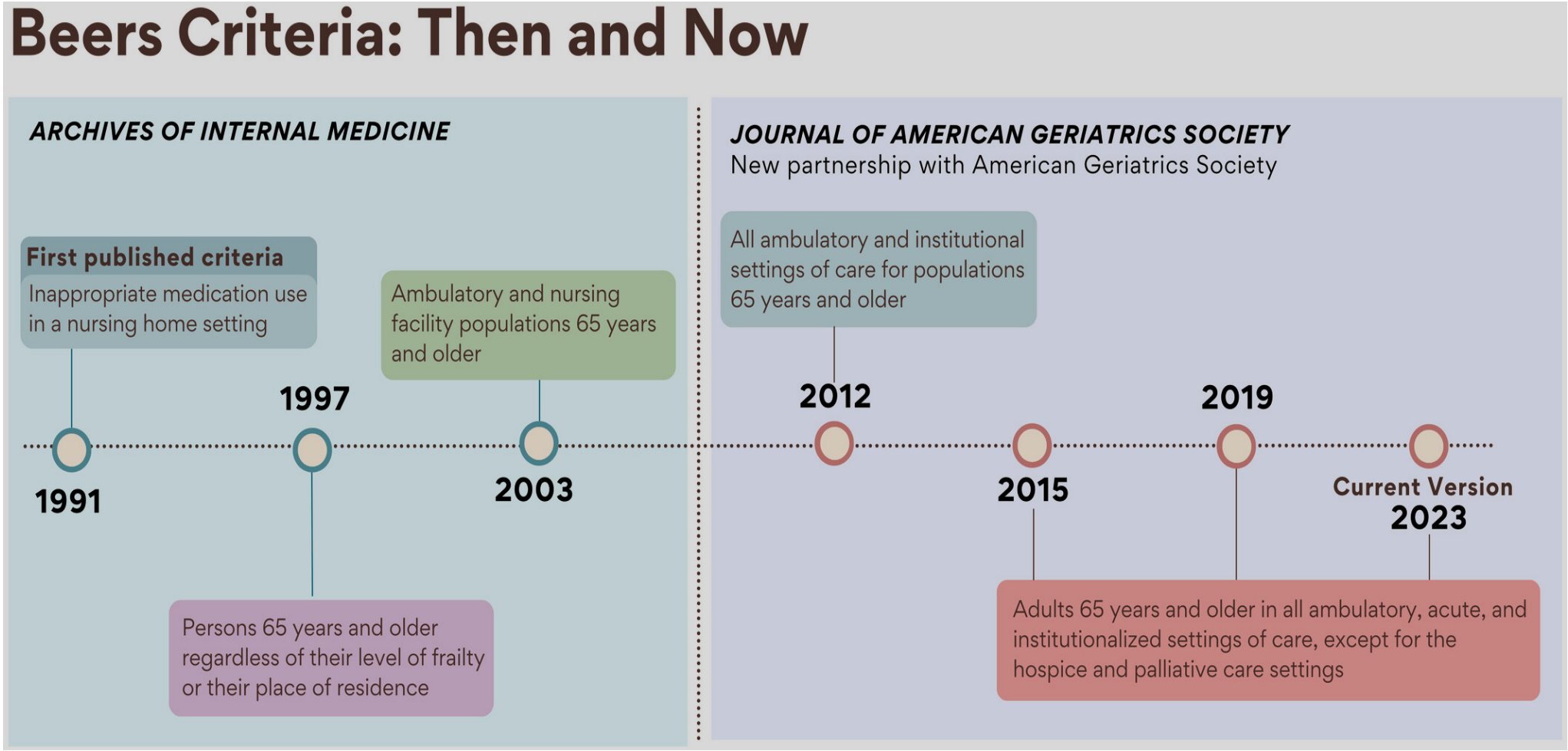




Introduction to AGS Beers Criteria

❖ Evolution of Beers Criteria: From Inception to the Current Version


Beers Criteria: Then and Now
ARCHIVES OF INTERNAL MEDICINE
JOURNAL OF AMERICAN GERIATRICS SOCIETY
New partnership with American Geriatrics Society
First published criteria
Inappropriate medication use in a nursing home setting
1991
1997
Persons 65 years and older regardless of their level of frailty or their place of residence
Ambulatory and nursing facility populations 65 years and older
2003
All ambulatory and institutional settings of care for populations 65 years and older
2012
2015
2019
Adults 65 years and older in all ambulatory, acute, and institutionalized settings of care, except for the hospice and palliative care settings
Current Version
2023

Introduction to AGS Beers Criteria

7 Principles for Use of the AGS Beers Criteria

- Medications in the Criteria are *potentially* inappropriate, not definitely inappropriate.
- Read the rationale and recommendations for each criterion.
- Understand why medications on in the Criteria and adjust your approach to those medications accordingly.
- Optimal application of the Criteria involves identifying PIMs, and when appropriate, use safer nonpharmacologic and pharmacologic therapies.
- The Criteria are a starting point for a comprehensive process of identifying and improving medication appropriateness and safety.
- Access to medications included in the Criteria should not be excessively restricted by prior authorization and/or health plan coverage policies.
- The Criteria are not equally applicable to all countries.

Introduction to AGS Beers Criteria

- **Detailed Comparison of 2019 and 2023 AGS Beers Criteria Updates**

➢ **Detailed analysis of the changes made between the 2019 and 2023 updates to the AGS Beers Criteria for Potentially Inappropriate Medication (PIM) Use in Older Adults.**

➢ **These changes are categorized into:**

1. **Structural Changes: Beers Criteria 2019 vs. 2023**
2. **Major Changes in 2023 Beers Criteria Update**

1- Structural Changes: Beers Criteria 2019 vs. 2023

Aspect	2019	2023
1. Target Audience	- Aimed at **clinicians, researchers, and health system managers.**	- Expanded to **include policymakers** and **patients**. - Emphasized **shared decision-making.** - **Enhanced application** in performance evaluations.
2. Organizational Clarity	- **Separate tables** for categories (e.g., inappropriate medications). - **Overlapping categories caused complexity.**	- Improved table **clarity** and **usability**. - **Unified categories to avoid duplication**, enabling **faster access to information**. - **Added a companion table summarizing articles from 2015 and 2019** to guide patients, providers, and health systems in using the criteria.
3. Guidance for Pharmacists	- **Limited guidance** on how pharmacists should specifically apply the criteria.	- Enhanced **focus on the role of pharmacists** in **applying the Beers** Criteria to improve medication safety and decision-making.

1- Structural Changes: Beers Criteria 2019 vs. 2023

Aspect	2019	2023
4- Removal of Low-Use Drugs	- Included **medications no longer widely used or available in the U.S.**, leading to **information overload.**	- **Removed drugs with low usage (<4000 Medicare prescriptions/year)** or **unavailable in the U.S.** - Focused on clinically relevant and commonly used drugs. - **Examples removed:** flurazepam, quazepam, ketoprofen, mefenamic acid, and ranitidine
5- Panel Composition and Scope	- Comprised of **13 members from diverse fields** (medicine, pharmacy, nursing). - Followed GRADE guidelines	- Comprised of **12 members, and 3 ex-officio representatives** from Medicare and other organizations. Maintained diverse expertise. - Followed GRADE guidelines
6- Evidence Review and Research	- Based on **studies up to 2017**. - Reviewed **17,627 references**, selected **377 articles..**	- Updated with research **up to 2022.** - Reviewed **33,965 references**, selected **451 articles,** reflecting greater reliance on robust evidence..

1- Structural Changes: Beers Criteria 2019 vs. 2023

Aspect	2019	2023
7- Updates to Tables and Categories	- **Limited detail for some categories**, causing potential confusion. - Lacked clear examples of drugs in specific categories.	- **Enhanced clarity in language.** - **Added specific examples** for each drug category to support better understanding and application by clinicians. - **Adding table reinforces the principle** that the Beers Criteria help clinicians identify PIM use in older adults
8- Medication Burden Assessment	- **Focused on individual drugs** and risks without considering **cumulative medication effects**.	- Included recommendations for assessing overall medication burden, **especially cumulative anticholinergic effects on falls and dementia risk..**

AGS Beers Criteria 2023 – The Tables

❖ **Medications on the list have safer alternatives or inadequate evidence of efficacy in older adults.**

- **Table 2**: Medications or medication classes that **should be avoided** in persons 65 years or older.
- **Table 3**: Medications that should be avoided in older persons known to have specific diseases or syndromes (**drug-disease interactions**).
- **Table 4**: Medications that should be **used with caution**.
- **Table 5**: Potentially clinically **important drug-drug interactions** to avoid in older adults
- **Table 6**: Medications that should be avoided or have their **dosage reduced with decreased renal function**
- **Table 7**: Drugs with **strong anticholinergic properties**
- **Table 8**: Medications/**criteria removed since 2019 Update**
- **Table 9**: Medications/criteria **added since 2019 Update**
- **Table 10**: Medications/criteria **modified since 2019 Update**

2- Major Changes in 2023 Beers Criteria Update

❖ Aspirin: Moved from Table 4 (Use with Caution) to Table 2 (Avoid)

➢ Recommendation:

- **Avoid initiating aspirin for primary prevention of cardiovascular disease.**
- **Consider deprescribing in older adults already taking it for this purpose unless they have a strong secondary prevention indication (e.g., history of myocardial infarction).**

➢ Rationale:

- **New evidence suggests that the risks of major bleeding outweigh the benefits in primary prevention for older adults.**
- **Studies indicate no net benefit in this population for preventing cardiovascular events**

NOTE: Aspirin is **generally indicated for secondary prevention** in older adults with established cardiovascular disease.

2- Major Changes in 2023 Beers Criteria Update

❖ Warfarin: Newly added to Table 2 (Avoid in Most Older Adults)

➢ **Recommendation:**

- **Avoid using warfarin as initial therapy** for **VTE** or **NVAF**, **except when:**
  - DOACs are contraindicated, or
  - Substantial barriers exist to their use.
- Long-term use may remain reasonable for patients with well-controlled **INR** levels and no adverse effects.

➢ **Rationale:**

- Compared to DOACs, warfarin has:
  - **Higher bleeding risks**.
  - Similar or lower effectiveness for VTE and NVAF treatment.

Clinical Implication: For **older adults who have been using warfarin long-term**, it may be **reasonable to continue this medication**, particularly among those with **well-controlled INRs (i.e., >70% time in the therapeutic range) and no adverse effects.**

2- Major Changes in 2023 Beers Criteria Update

❖ Rivaroxaban: Moved from Table 4 (Use with Caution) to Table 2 (Avoid)

➢ Recommendation:

- Avoid rivaroxaban **for long-term treatment of NVAF or VTE** in favor of safer anticoagulant alternatives.

➢ Rationale:

- At doses used for long-term treatment of VTE or NVAF, rivaroxaban appears to **have a higher risk of major bleeding and GI bleeding in older adults** than other DOACs, **particularly apixaban.**
- Rivaroxaban may be **reasonable in special situations**, for example **when once-daily dosing is necessary to facilitate adherence.**
- All DOACs confer lower risk of intracranial hemorrhage than warfarin

Clinical Implication: This update underscores the need to prioritize safer anticoagulants **like apixaban** for older patients requiring long-term anticoagulation

2- Major Changes in 2023 Beers Criteria Update

❖ SGLT-2 Inhibitors: (added to Table 4 – Use with Caution)

➢ Recommendation:

- Use with caution.
- Monitor patients for **urogenital infection**s and **ketoacidosis.**

➢ Rationale:

- Older adults may be at **increased risk of urogenital infections**, **particularly women** in the first month of treatment.
- An **increased risk of ketoacidosis** has also been seen in older adults.

Clinical Implication: Use with caution. Monitor patients for urogenital infections and ketoacidosis.

2- Major Changes in 2023 Beers Criteria Update

❖ Opioids: (added to Table 3 – avoiding opioids in older adults with delirium.)

➢ Recommendation:

- **Avoid opioid use unless pain management is critical** and **no safer alternatives** are available..

➢ Rationale:

- Opioids can **exacerbate delirium** and **impair cognitive function** in older adults.
- **Increased risks of falls**, **respiratory depression**, and **sedation** .

Clinical Implication : Use non-opioid pain management strategies whenever possible and **monitor closely if opioids are deemed necessary.**

2- Major Changes in 2023 Beers Criteria Update

❖ **Selective Serotonin Reuptake Inhibitors (SSRIs): Newly included in Table 5 (Drug Interactions).**

➢ **Recommendation:**

- **Avoid concurrent** use of **SSRIs with warfarin** due to **elevated bleeding risks.**

➢ **Rationale:**

- **SSRIs interfere with platelet aggregation**, which, when combined with anticoagulants like warfarin, **increases** the likelihood of **serious bleeding events.**

Clinical Implication : Clinicians should **carefully assess bleeding risks** before prescribing this combination and consider alternatives..

2- Major Changes in 2023 Beers Criteria Update

❖ **Baclofen: Newly included in Table 6 (Medications that should be avoided or have their dosage reduced with reduced kidney function).**

➢ **Recommendation:**

- **Avoid in patients with eGFR <60 mL/min** due to the **risk of encephalopathy**.

➢ **Rationale:**

- Impaired renal function **leads to reduced clearance of baclofen**, **increasing the risk of toxicity**, including **confusion, sedation**, and **encephalopathy.**

Clinical Implication: In patients with reduced kidney function, **use alternative muscle relaxants** or **reduce baclofen dosage** with **close monitoring**.

2- Major Changes in 2023 Beers Criteria Update

❖ **Skeletal Muscle Relaxants: Added to the list of medications to avoid combining with ≥3 CNS-active drugs in Table 5..**

➢ **Recommendation:**

- **Avoid concurrent use** of **skeletal muscle relaxants** with **other CNS-active medications** like benzodiazepines, antipsychotics, and sedatives.

➢ **Rationale:**

- Increases risks of **sedation**, **cognitive impairment**, **falls, and fractures** in older adults.

Clinical Implication: Consider safer alternatives or **avoid** CNS polypharmacy whenever possible in older adults.

2- Major Changes in 2023 Beers Criteria Update

❖ **Sulfonylureas: (all, including short- and longer-acting) (updated language in Table 2)**

➢ **Recommendation:**

- **Avoid** sulfonylureas **as first or second-line monotherapy** or **add-on therapy** unless there are substantial barriers to use of safer or more effective agents.
- If a sulfonylurea is used, **choose a short-acting one (e.g., glipizide)** over long-acting ones (e.g., glyburide, glimepiride).

➢ **Rationale:**

- Sulfonylureas have a **higher risk of CV events**, **all-cause mortality**, and **hypoglycemia** than alternative agents.

2- Major Changes in 2023 Beers Criteria Update

❖ **Estrogen with or without progestins: (updated language in Table 2)**

➢ **Recommendation:**

- **Do not initiate systemic estrogens (oral or transdermal) in older women.**
  - For women **who start HRT >60 yrs**, the **risks are greater than the benefits.**
  - Consider deprescribing in older women

➢ **Rational:**

- **Systemic estrogens** increase risks of **heart disease, stroke, blood clots**, and **cancers**.
- **Low-dose vaginal estrogens** are **safe, effective**, and **minimally absorbed systemically**

Clinical Implication: Topical vaginal estrogen is appropriate for the management of **vaginal atrophy or UTI prophylaxis.**

2- Major Changes in 2023 Beers Criteria Update

❖ Updated Language

- **Anticholinergics**
  - **Cumulative exposure** is associated with an **increased risk of falls**, **delirium**, and **dementia**, even in younger adults.
  - Consider total anticholinergic burden during regular medication reviews.
- **Antipsychotics**
  - **Expanded the rationale** on avoiding antipsychotics **for behavioral problems of dementia**.
  - **Use as a last resort** if behavioral interventions have failed.
- **Proton Pump Inhibitors**
  - Risk of **pneumonia** and **GI malignancies** were added to the rationale (**C. difficile infections, bone loss, fractures**) for avoiding long-term use of these agents.
  - Avoid long-term PPI use **(>8 weeks**) unless there is a strong indication (e.g., severe GERD, erosive esophagitis).

2- Major Changes in 2023 Beers Criteria Update

❖ Updated Language

Modifications to Table 5 – Drug Interactions

- Avoid the use of **multiple agents with anticholinergic effects**.
- Avoid **concurrent use of ≥3 CNS-active medications.**
    - Added skeletal muscle relaxants to the list of medications.
- **Added SSRIs to the warfarin interaction**
- Avoid the use of **Opioid + benzodiazepine**: include **risk for adverse effects**; supported by data.
- Avoid the use of **Lithium + ARBs and ARNIs:** Supported by data and reference sources

2- Major Changes in 2023 Beers Criteria Update

❖ Updated Language

Medications Removed Due to Low Utilization or no Current U.S. Manufacturer

- Low use defined as **<4000 Part D fills in 2019**..
  - **<0.01% of Medicare beneficiaries**.
  - Ex. disopyramide, flurazepam, clemastine.

- **Listed as "Discontinued" by FDA; not on the U.S. market.**
  - Ex. methyldopa, reserpine, chlorpropamide.

NOTE: Removal from the AGS Beers Criteria **does not translate as an endorsement to prescribe.**

2- Major Changes in 2023 Beers Criteria Update

❖ Updated Language

Medications to Avoid or Adjust Dosage in Reduced Kidney Function (Table 6):

1. **Baclofen**: **Added to table 6** Avoid use **when eGFR <60 mL/min**/1.73 m2,
   - if <60 mL/min/1.73 m2, **suggest tapering to discontinuation** or **safer alternative.**
2. **Nitrofurantoin:** Existing recommendations **from Table 2 are duplicated in Table 6** to enhance clarity and usability.
3. **Trimethoprim-Sulfamethoxazole:** Clarifying language added as risk of hyperkalemia especially prominent with concurrent use of an ACE, ARB, or ARNI. to support clinical use.
4. **Rivaroxaban: Reduce dose when CrCl <50 mL/min** based on package insert.
5. **NSAIDs:** Criterion **moved from Table 3** for consistency and clearer language
6. **Apixaban: Use is safe in CrCl <25 mL/min,** Closely monitor for adverse drug events such bleeding

References:

- American Geriatrics Society. AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. 2019 Update. Journal of the American Geriatrics Society.
- American Geriatrics Society. AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. 2023 Update. Journal of the American Geriatrics Society.
- Table adapted from Meyer K. What's on tap: 2023 Beers Criteria update. Pharmacy Today. July 2023. www.pharmacytoday.org.
- ChatGPT. Assistance in summarizing and analyzing the 2023 AGS Beers Criteria Update. OpenAI, 2025.
- NYSCHP Monthly Webinar: 2023 Updated AGS Beers Criteria: What's New, What's Changed, & Why? https://youtu.be/YI94872cAOo

THANK YOU

FOR YOUR ATTENTION

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